UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

April 3, 2014

Paul J. Bluestein, P.E.
Project Coordinator
Tierra Solutions, Inc.
2 Two Center Boulevard
East Brunswick, NJ 08816

Re: Diamond Alkali, Lower Passaic River Study Area – River Mile 10.9
Unilateral Administrative Order for Removal Response Activities
USEPA Region 2 CERCLA Docket No. 02-2012-2020

Dear Mr. Bluestein:

EPA has reviewed the Passaic River Mile 10.9 Pipeline Survey: Statement of Work, Parametric Echo Sounding and Ground Penetrating Radar Methods (SOW), submitted on March 3, 2014 on behalf of Occidental Chemical Corporation (Occidental) as respondent to the RM 10.9 Unilateral Administrative Order (UAO). Pursuant to Section XI, Paragraph 36 (b) of the UAO, EPA hereby approves the SOW on the condition that the SOW is revised to reflect the comments below. Occidental should provide a written response to each of the comments. In addition, this will confirm that Occidental should submit a Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HSP) for the proposed work. Please submit the revised SOW by April 18, 2014. The QAPP and HSP should be submitted by April 25, 2014.

General Comments:

1. Please state in the SOW how access and notice will be addressed. A preliminary list of contacts has been provided directly below. Please let EPA know if you need any additional information:
    a. In regards to the shoreline access in the survey area, the Bergen County Parks Department should be contacted. Ronald Kistner, the Director, can be contacted at:
    Ronald Kistner, Director,
    One Bergen County Plaza, Fourth Floor, Hackensack, NJ 07601
    Phone Number: 201-336-7275
    Email Address: RKistner@co.bergen.nj.us
    b. Township of Lyndhurst Fire Department –operates a boat launch for use in cases of emergencies.
    c. If a boat with an air draft more than 7 feet is used, please contact the bridge operators.
    d. In-river users such as boating clubs and local township high school rowing crews are notified prior to the commencement of work.

2. Pursuant to Section X, Paragraph 24, please submit a HSP for the planned work. As a reminder, EPA may recommend changes to the HSP, but EPA does not approve HSPs.

3. Pursuant to Section X, Paragraph 25, please submit a QAPP for review and approval prior to the commencement of work.

4. If available, please provide project descriptions (and images) showing successful delineation of a subsurface pipeline in previous projects by the University of Illinois. While described as having extensive experience in both PES and GPR, the contractor did not provide any supporting qualifications or final product images of locating a subsurface pipeline from its own work (just from the PES manufacturer).

5. Please provide a response to the following Kinematic DGPS positioning questions and clarify within the draft SOW:
    a. How will the base station be established (OPUS solution, local broadcast)?
    b. What local area benchmarks will be used as check points, and how many?
        1. It is recommended that 3-4 be used to verify/validate the temporary point for QC purposes (in case 1 or 2 locations are of poor accuracy).
        2. How will poor satellite visibility in the shoreline trees be accounted for during either the PES or, more likely, the GPR surveys?

6. In order to provide the best chances at high quality data, the surveys should be planned around as high a tide as possible for the PES, and as low a tide as possible for the GPR.
    a. This will allow the PES to measure as far inshore as safely feasible, and may allow the GPR to survey offshore in the mudflat, if the water level is low enough.
    b. Overlapping PES and GPR data will only serve to add confidence in determining the pipeline location.

7. Please provide a response to the following questions related to gas bubbles in the sediment that might be a concern (as noted in the SOW):
    a. Do the Univ. of Illinois personnel have experience trying to measure data in sediments that contain gas bubbles? If so, what potential alternative tactics can be employed?
    b. Have alternative technologies been considered if the acoustic system (i.e. PES) is unsuccessful (e.g. magnetometer if the pipelines are constructed of ferrous materials and/or electrical resistivity imaging)?

8. When EPA approves the SOW, please provide a schedule containing calendar dates, at least one month in advance of mobilization. Please note that this study effort will need to be coordinated with the on-going River Mile 10.9 capping efforts. Based on CPG's current schedule it is anticipated that their River Mile 10.9 operations will be completed in mid-May 2014.

Please let me know at your earliest convenience whether you would like to discuss any of these comments further. I can be reached at 212-637-4328 or LaPoma.Jennifer@epa.gov.

Sincerely,

Jennifer LaPoma
Remedial Project Manager
U.S. Environmental Protection Agency – Region 2
290 Broadway
New York, NY 10007-1866

Cc:
S. Flanagan (EPA)
R. Basso (EPA)
S. Vaughn (EPA)